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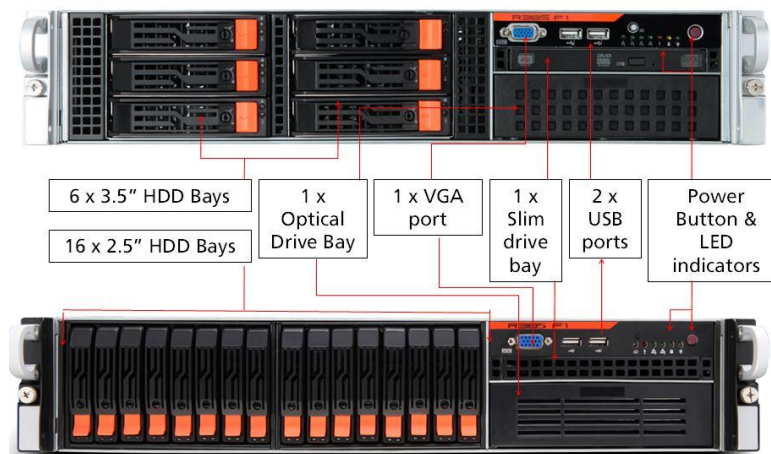
AR385 F1 Product Overview

The Acer AR385 F1 is a dual socket 2U server for space-conscious users who demand the highest performance and utmost expansion capability. Offering low power consumption and a comprehensive suite of management features, the Acer AR385 F1 delivers optimized price/performance for enterprise deployments.

Product Front View

| 6 x 3.5" HDD Bays | 1 x Optical Drive Bay | 1 x VGA port | 1 x Slim drive bay | 2 x USB ports | Power Button & LED indicators |
| 16 x 2.5" HDD Bays | | | | | |

24 memory DIMMS
DDR 3 supporting ECC (Error Correcting Code)

Software RAID
0, 1,10 for data protection

Six 3.5" HDD Tray Or Sixteen 2.5" HDD Tray for growing information (6 x 3.5" shown)

1 VGA port

Redundant Power Supply
high efficient 80+ Gold PSU

2 USB ports for easy access USB devices

6 PCIe lanes for wide variety of applications

Low voltage option processors for high efficient operation

Tool-less Chassis for quick and easy service

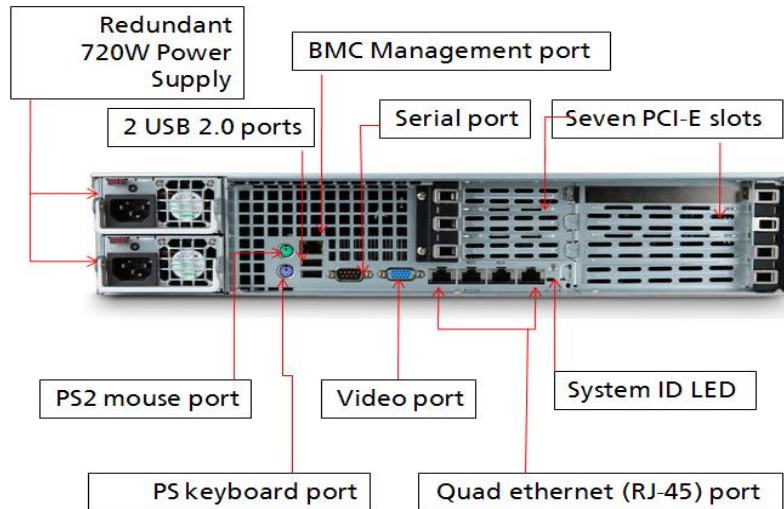**4 system cooling fans**
For thermal fault tolerance

1 x 3.5" Optical bay for optical and ODD

Product Inside View

1. 24 x ECC DDR3 1066/1333 MHz registered or unbuffered memory slots
2. 2 x AMD Opteron™ series processors supporting up to 12-cores per processors
3. 2 x 720 W 80 PLUS® gold-level efficient hot-swap power supplies (1+1 redundant)
4. Hot-plug redundant system cooling fans
5. 2 x USB 2.0 Front-mounted connectors
6. Power button, System ID button, LED indicators (Power, HDD activity, LAN 1-4 status, system ID/status/fault), video port
7. Support for up to sixteen 2.5" or six 3.5" hot-plug SATA or SAS hard disk drives
8. 1 x Slim-line Optical drive bay and 1 5.25" Tape drive bay
8. 7 x PCI Express® slots

Product Rear View

1. PS2 keyboard connector
2. PS2 mouse connector
3. 2 x USB 2.0 connectors
4 Management IPMI LAN connector
5. COM (Serial) connector
6. Video connector
7. 4 x Gigabit LAN connectors
8. ID LED

What's New
- New AMD Opteron™ 6100 series processors
- 2 x 720 W 80PLUS® gold-level efficient power supply units (1+1 redundant, hot-pluggable)
- DDR3 memory

Product Specifications

Processors and Chipset
- Up to two AMD Opteron™ 6100 series processors
- Chipset: AMD SR5690/SP5100

Memory[1]
- Memory capacity:
  - Registered DIMM: 2, 4, 8, 16 GB[2]
  - Unbuffered DIMM: 2, 4 GB
- Up to 192 GB registered DIMMs when fully populated with 3 DIMMs per channel in 24 slots
- Up to 64 GB unbuffered DIMMs when fully populated with 2 DIMMs per channel in 16 slots

Network Controllers
- 2 X Integrated Intel® 82576EB dual-port Gigabit Ethernet Controller (4 ports total)

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[1] Mixed use of registered memory and unbuffered ECC memory not supported

[2] 16 GB memory modules available by special request only

Storage
- Hard disk form factor: 2.5" or 3.5"
- Type: SAS/ SATA/ SSD with hot plug capability
- HDD Capacity (enterprise level):
  - 3.5" SAS HDD capacity: 300 GB, 450 GB, 600 GB
  - 3.5" SATA HDD capacity: 250 GB, 500 GB, 1TB, 2TB
  - 2.5" SAS HDD capacity: 73 GB, 146 GB, 300 GB, 450 GB, 600 GB
  - 2.5" SATA HDD capacity: 150 GB, 300 GB, 500 GB
  - 2.5" SSD capacity: 32 GB and 64 GB
- 3.5" Maximum capacity:
  - Up to 12 TB SATA (2 TB 3.5" x 6 HDDs)
  - Up to 3.6 TB SAS (600 GB 3.5" x 6 HDDs)
- 2.5" Maximum capacity:
  - Up to 8 TB SATA (500 GB 2.5" x 16 HDDs)
  - Up to 9.6 TB SAS (600 GB 2.5" x 16 HDDs)

Storage Controllers
- Integrated AMD$^®$ SP5100 Chipset Serial ATA host controller with RAID 0, 1, 10 support
- Optional PCIe$^®$ 4-port/8-port and 16-port 6Gb/s SAS RAID card (standard on some models)

Expansion slots
- Three full height PCI-E 2.0 x16 slots (with x8 link; left)
- One low profile PCI-E 2.0 x4 slot (right)
- Two low profile PCI-E 2.0 x4 slots (with x2 link; right)

Management
- Acer Smart Server Manager
- System ID LED buttons, System Health LED
- Acer Smart Console for server management and KVM over IP remote management

Deployment/Serviceability
- Acer Smart Setup
- BIOS Update Tool
- IPMI Firmware Update Tool

Operating Systems
- Windows$^®$ Server$^®$ 2008
- Windows$^®$ Server$^®$ 2008 R2
- Windows$^®$ Server$^®$ 2003
- Red Hat$^®$ Enterprise Linux 5
- SuSE$^®$ Linux Enterprise Server 11
- VMware ESXi$^™$ 4
- VMware ESX$^™$ 4

Input/output interface
Front
- One Power/off button
- LED indicators: power, HDD activity, LAN port 1 through 4, and ID
- Two USB 2.0 ports
- One VGA port

Rear
- PS2 keyboard port
- PS2 mouse port
- Two USB 2.0 ports
- Four RJ-45 ports (quad Gigabit NIC) with activity and link indicators
- RJ-45 port (dedicated for management NIC) with activity and link indicators
- Serial (DB-9) port
- SVGA (DB-15) port
- ID LED

Optical drive
- Slim-line SATA DVD/RW
- Optional 5.25" tape drive

Chassis/Form Factor
- 2U rack optimized

Power Supply
- 1 Power Supply Standard, 2nd optional
- Up to 2 x 720 W 80 PLUS$^{®}$ Gold-level efficient hot-swap power supplies (1+1 redundant)

Regulatory Compliant Standards
EMC
- FCC (Class A)
- CE (Class A)
- BSMI (Class A)

Safety
- UL/cUL
- CB
- Nemko/GS

Technical Specifications

Dimensions (with bezel)	438.4 mm (W) x 705 mm (D) x 88.1 mm (H) (17.3 x 27.8 x 3.5 inches)	
Form factor	2U rack optimized with cable arms included	
Weight (approximate)	Maximum (All component slots and sockets fully installed)	39 kg (88.1 lbs)
	Minimum (One HDD, power supply, and processor installed)	28.5 kg (62.8 lbs)
BTU rating	Maximum	3276 BTU/hr
System inlet temperature	Operating	10° - 35° C (50° - 95° F) at sea level with an altitude derating of 1° C per 305 m (1.8° F per 1000 ft.) above sea level to a maximum of 3050 m (10,000 ft.) no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit depends the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
	Non-operating	-40° - 70° C (-40° - 158° F) Maximum rate of change is 20°C/hr (36°F/hr).
Relative humidity (non-condensing)	Operating	8 - 90 % relative humidity (Rh), 28° C (82.4° F) maximum wet bulb temperature, non-condensing
	Non-operating	5 - 95 % relative humidity (Rh), 38.7° C (101.7° F) maximum wet bulb temperature, non-condensing
Acoustic noise	Listed are the declared A-weighted sound power levels (LWAd) and declared average bystander position A-weighted sound pressure levels (LpAm) when the product is operating in a 21° C ambient environment. Noise emissions were measured in accordance with ISO 7779.	
	Idle	LWAd: 6.4 BA/ LpAm: 45.8 dBA
	Operating	LWAd: 7.2 BA / LpAm: 53.6 dBA
Emissions classification (EMC)	FCC rating	Class A
	Normative standards	EN55022, EN 61000-3-2, EN 61000-3-3, CISPR 22 Class A
Power supply	Rated Steady –state power	720 W
	Maximum Peak Power	728 W
	BTU rating	2456.64 BTU/hr at 100 - 240 VAC

Standard Features

Processors

AMD Opteron™ processor (12-Core)

6174 (2.2G, L2-3MB, L3-12M, FSB 3200, 45nm 12 cores, G34 socket, D1)
6172 (2.1G, L2-3MB, L3-12M, FSB 3200, 45nm 12 cores, G34 socket, D1)

AMD Opteron™ processor (8-Core)

6136 (2.4G, L2-3MB, L3-12M, FSB 3200, 45nm 8 cores, G34 socket, D1)
6128 (2.0G, L2-3MB, L3-12M, FSB 3200, 45nm 8 cores, G34 socket, D1)

AMD Opteron™ processor (low-voltage)

6128HE (2.0G, L2-3MB, L3-12M, FSB 3200, 45nm 8 cores, G34 socket, D1)

Chipset

AMD SR5690/SP5100

Memory[3]		
	Type	DDR3 1066/1333 MHz registered memory DDR3 1066/1333 MHz unbuffered ECC memory
	DIMM sockets	24
	Capacity	Registered DIMM: 2 / 4 / 8 / 16 GB[4] Unbuffered ECC DIMM: 2 / 4 GB
	Maximum capacity	Registered DIMM: 192 GB Unbuffered DIMM: 64 GB Note: AMD's chipset architecture limits quad rank 16GB to one DIMM per channel

Memory protection	ECC, Online Spare Mode
Network controller	Integrated dual Intel® 82576EB Gigabit Ethernet Controller (quad ports)

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[3] Mixed use of registered memory and unbuffered ECC memory not supported.
[4] 16 GB memory modules available by special request only

Expansion slots

The primary I/O bus for the main board is PCIe Gen2. The following table lists the characteristics of the PCI-E bus segments.

PCI express Bus Segment Characteristics of PCI Express Topology

Expansion Slot #	# of slots	Type	Bus Width[1]	Vol.	Con. Width	Location	Length
PCIe	3	PCIe Gen 2	x8	3.3V	x16	Left	Full height
PCIe	1	PCIe Gen 2	x4	3.3V	x4	Right	Low profile
PCIe	2	PCIe Gen 2	x2	3.3V	x4	Right	Low profile

NOTE:

1. Indicates the number of physical electrical lanes running to a PCIe® connector.
2. Default bus assignment (in decimal). Inserting cards with PCI™ bridges may alter the actual bus assignment number.
3. Slots are enumerated differently based on the operating system. Microsoft® operating systems enumerate Device ID by bus starting from the lowest bus to the highest.

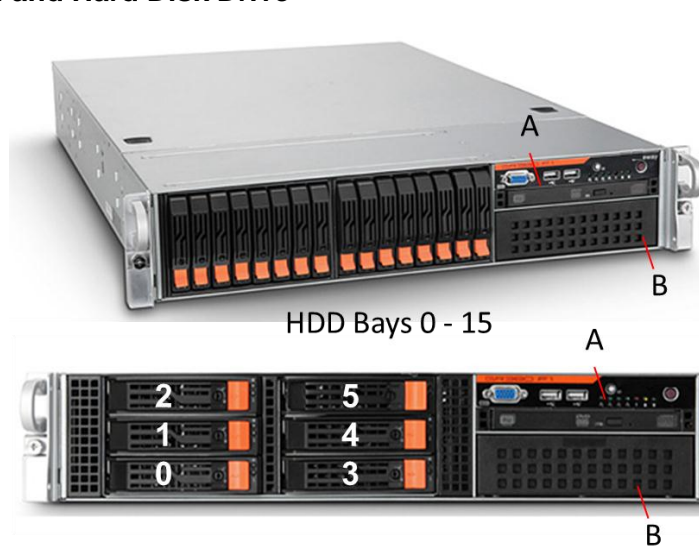|		
Storage controller	AMD® SP5100 SATA controller	
Integrated Serial ATA controller	**Simultaneous drive transfer channels**	6 channels
	Transfer rate synchronous (maximum theoretical)	3 Gb/s per channel
	Data transfer method	Non-RAID mode RAID mode (Adaptec® RAID driver)
	Drive support	Serial ATA
	Data transfer modes	Legacy mode Combined mode
	Protocol	Serial ATA
	Feature	NCQ (Native Command Queuing) AHCI (Advanced Host Controller Interface)
	RAID levels supported	0, 1, 10
	RAID features	• Supports multiple logical volumes • Supports setup through ROM based array configuration utility installation scripting **NOTE:** This controller requires the software RAID driver to support hot-plug functions.
	RAID OS support	Windows Server® 2003 Windows Server® 2008 Windows Server® 2008 R2 Red Hat® Enterprise Linux 5.4 Novell® SuSE® Linux Enterprise Server 11 VMWare ESXi™ 4 VMWare ESX™ 4

Two Embedded dual-port Gigabit server adapter (Intel 82576EB) quad port total	**Network interface**	10Base-T 100Base-TX 1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX	
	Data transfer method	Four lane (x4), 100 MHz PCI Express reference clock	
	Network transfer rate	10Base-T (half-duplex)	10 Mb/s
		10Base-T (full-duplex)	20 Mb/s
		100Base-TX (half-duplex)	100 Mb/s
		100Base-TX (full-duplex)	200 Mb/s
		1000Base-TX (half- and full-duplex)	2000 Mb/s
	Connector	RJ-45	
	Cable support	CAT 5e wire	
	Virtualization acceleration	Intel I/O Acceleration Technology Virtual Machine Device Queues (VMDq) PCI-SIG SR-IOV implementation	
	Manageability	NC-SI SMBus, PXE, iSCSI boot	

Storage

Maximum internal storage	**Hard disk drive**	• Up to 6 hot-pluggable 3.5" SATA/SAS HDD • Up to 16 hot-pluggable 2.5" SATA/SAS/SSD HDD
	3.5" Maximum capacity	• Up to 12 TB SATA • Up to 3.6 TB SAS
	2.5" Maximum capacity	• Up to 8 TB SATA • Up to 9.6 TB SAS • Up to 1 TB SSD

Drive Support – Optical and Hard Disk Drive

HDD Bays 0 - 15

Optical Drive Support

Drive	Quantity Supported	Bay Supported	Required Controller
Slim type SATA DVD/RW Optical Drive	Up to 1	A	Integrated SATA controller

Hard Disk Drive Support

Drive	Quantity Supported	Bay Supported	Required Controller
2.5" SATA/SAS/SSD hard drives	Up to 16	0 - 15	Integrated SATA controller for up to 4 SATA HDD's 4-port SAS RAID card for up to 4 SAS/SATA/SSD HDD's* 8-port SAS RAID cards for up to 8 SAS/SATA/SSD HDD's* 16-port SAS RAID card for up to 16 SAS/SATA/SSD HDD's
3.5" SATA/SAS hard drives	Up to 6	0 - 5	Integrated SATA controller for up to 4 SATA HDD's 4-port SAS RAID card for up to 4 SAS/SATA/SSD HDD's* 8-port SAS RAID card for up to 6 SAS/SATA HDD's*

*standard on some models

NOTE: Transfer rates of drives are dependent on the maximum transfer rate supported by the host bus adapter (HBA) or controller.

Tape Backup Drive Support

Drive	Bay Supported	Required Controller
LTO-3 1U SAS Rackmount (external) Tape Drive kit	External	SAS card
LTO-4 1U SAS Rackmount (external) Tape Drive kit	External	SAS card
160/320 GB, DAT320, 5.25", internal half height, USB interface	B	Internal USB 2.0 ports
80/160 GB, DAT160, 5.25", internal half height, USB interface	B	Internal USB 2.0 ports
36/72 GB, DAT72 (DDS Gen-5), 5.25", internal half height, USB interface	B	Internal USB 2.0 ports

Graphics	BMC chip embedded • 1280 x 1024 • 16 M colors • 16 MB video memory
Industry standard compliance	IPMI 2.0 Compliant (iBMC) APM 1.2 compliant SMBUS 2.0 SMBIOS 2.61 compliant ACPI v3.0b Compliant PCI-E.1.1for Gen 1and PCI-E 2.0 for Gen 2 PXE 2.1 support TPM cer1.2 compliance (through optional module) WOL support Microsoft® Windows Hardware Logo Program Requirements
Security	HDD carrier mechanical lock Administrator / User password Set-up password Removable device boot control Serial Interface control TPM controller (TPM v1.2 Compliant) (manufacturing option)
System cooling	• Two CPU heat sinks supporting AMD Opteron™ processors with TDP up to 115 W • Redundant/hot pluggable system fans (w/PWM control)
Operating systems and virtualization software support	Windows® Server® 2008 Windows® Server® 2008 R2 Windows® Server® 2003 R2 Red Hat® Enterprise Linux® 5.4 SUSE® Linux® Enterprise Server 11 VMware ESXi™ 4 VMware ESX™ 4

Server Management Utilities and Applications

Comprehensive management solutions deliver powerful and intuitive management features to simplify server set ups, configuration, management, monitoring, and reporting for the entire lifecycle of servers. Centralized administration and automatic management with remote access control free the IT resources and meet the complex business environment. Proactive monitoring and notification lead higher customers' satisfaction and higher levels of operational efficiency.

Smart Setup 2.0   Easy deployment via the latest version of Acer's Smart Setup. Smart Setup is available both in box as a driver packed installation DVD or a downloadable file to be put into a USB 2.0 device, and eases the deployment of Acer servers for any certified OS. Through its unique interface, users may select to have all the correct drivers be pre-deployed for the OS of their choosing, as well as setup hardware RAID devices, BMC settings (where available), and even clone the pre-settings to a bootable USB device to ease mass server deployments.

Smart Console   Web-based management utility to simplify system management with embedded iBMC, system monitoring and alerting, event handling, remote power control and KVM-over-IP. Smart Console is OS independent and offers virtual media through floppy, ODD, and removable disk.

Smart Server Manager v1.1   Offering 24-7 monitoring for system health and performance.
Delivers proactive event management features including system event logging, event handling from e-mail and SNMP Trap (PET) alerting.
Monitors onboard hardware, operating systems and virtual machines
Allows remote control from KVM and Power control
Satisfies management in web-based UI, role-based administration, and automated management scripts.

Intelligent manageability
- Automatic Server Recovery (ASR)
- Integrated Management Log
- Front and Rear Unit ID (UID) button/LED
- BIOS Update tool for DOS supporting DOS and Windows OS
- IPMI Firmware Update tool supporting DOS and Windows OS
- Backplane firmware update tool, supporting DOS and Windows OS

Environment-friendly products and approach   Acer offers end-of-life product return, trade-in, and recycling programs in many geographic areas. Products returned to will be recycled, recovered or disposed of in a responsible manner.

Memory Support Specification

Registered Type   DDR3 1066/ 1333 MHz

                                      Capacity: 2, 4, 8, 16 GB

                                        Voltage: 1.5 V

                                        Maximum : 192 GB (8GB x 24 DIMMs)

Unbuffered Type   DDR3 1066/ 1333 MHz

                                        Capacity: 2, 4 GB

                                        Voltage: 1.5 V

                                        Maximum: 64 GB (4 GB x 16 DIMMs)

Memory protection   ECC, Online spare mode

Note: Mixing of registered memory and unbuffered ECC memory is not supported
16 GB memory modules available by special request only

Memory Population

The systems have twenty four DIMM slots. Each CPU controls twelve slots. The DIMM slots support DDR3-1333 registered/unbuffered ECC memory modules. For single rank and dual rank RDIMM the system supports a maximum of 3 DIMMs per channel and a total of 24 DIMMs can be supported. For UDIMM the system supports 2 DIMM per channel and a total of 12 DIMMs can be supported. For quad rank RDIMM, the system supports 1 DIMM per channel and a total of 8 DIMM's can be supported.

- Each CPU has 4 memory channels.
- Each channel has 3 slots.

To maximize the memory performance, the DIMM modules should be installed as balanced as possible among processors and memory channels. And slots with the same slot number across memory channels should be populated with identical DIMMs.

Independent mode (please refer to the User Guide for more information)

- In this mode all memory is accessible and ECC protected

Single processor configuration

Total Memory	P1 DIMM4C	P1 DIMM4B	P1 DIMM4A	P1 DIMM3C	P1 DIMM3B	P1 DIMM3A	P1 DIMM2C	P1 DIMM2B	P1 DIMM2A	P1 DIMM1C	P1 DIMM1B	P1 DIMM1A
4GB						2GB						2GB
8GB			2GB			2GB			2GB			2GB
16GB	2GB		2GB	2GB		2GB	2GB		2GB	2GB		2GB
24GB[1]	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB	2GB
8GB						4GB						4GB
16GB			4GB			4GB			4GB			4GB
32GB	4GB		4GB	4GB		4GB	4GB		4GB	4GB		4GB
48GB[1]	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB	4GB
16GB[1,2]						8GB						8GB
32GB[1,2]			8GB			8GB			8GB			8GB
64GB[1,2]	8GB		8GB	8GB		8GB	8GB		8GB	8GB		8GB
96GB[1,2]	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB
32GB[1,2]				16GB						16GB		
64GB[1,2]		16GB		16GB				16GB		16GB		

[1] 3 DIMM's per channel supported with RDIMM's only (registered memory).
[2] 16 GB memory modules available by special request only

Dual processor configuration

Total Memory	CPU1 (P1DIMMxx)												CPU2 (P2DIMMxx)											
	4C	4B	4A	3C	3B	3A	2C	2B	2A	1C	1B	1A	4C	4B	4A	3C	3B	3A	2C	2B	2A	1C	1B	1A
8GB						2						2						2						2
16GB			2			2			2			2			2			2			2			2
32GB	2		2	2		2	2		2	2		2	2		2	2		2	2		2	2		2
48GB[1]	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16GB						4						4						4						4
32GB			4			4			4			4			4			4			4			4
64GB	4		4	4		4	4		4	4		4	4		4	4		4	4		4	4		4
96GB[1]	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
32GB[1,2]						8						8						8						8
64GB[1,2]			8			8			8			8			8			8			8			8
128GB[1,2]	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8		8
192GB[1,2]	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
64GB[1,2]				16						16						16						16		
128GB[1,2]		16		16				16		16				16		16				16		16		

[1] Only supported for RDIMM (registered memory).
[2] 16 GB memory modules available by special request only
[3] DIMM per channel configuration is only available for single/dual rank RDIMM. UDIMM only supports max of 2 DIMMs per channel; quad rank RDIMM can only support 1 DIMM per channel.

On-Line Spare

On-line spare is a RAS mechanism that allows the system to reserve one rank of one logical DIMM to be used as a spare rank. The spare rank must be greater than or equal to the size of all other ranks in the system. The system can switch to the spare rank when system software determines that one of the ranks in the system is no longer functioning properly and needs to be replaced.

Memory Identification

Generally, there is memory information printed on the label of DIMM, but different vendors may have different formats. For example:

4GB 2Rx4 PC3-10600R xx xx xxx

1. Density

- 2GB, 4GB, 8GB, 16GB
- AMD$^®$ 6000 series processors support DIMMs organized by 1Gb, 2Gb or 4Gb DRAM chips

2. Rank

- 1R = Single Rank
- 2R = Dual Rank
- 4R = Quad Rank
- Note: if any quad rank DIMM is used, maximum only 2 DIMMs per channel can be supported

3. Bit Organization

- This platform supports x4 and x8
- Note: It's not recommend to mix DIMMs with different bit organizations in one system

4. Speed

- PC3 – 6400 => DDR3- 800
- PC3 – 8500 => DDR3- 1066
- PC3 – 10600 => DDR3- 1333

Power Supply Specification

720W Power Supply							
Operational Input Voltage Range (Vrms)	100 to 240 VAC						
Frequency Range (Nominal) (Hz)	50 / 60						
Nominal Input Voltage (Vrms)	**100**	**120**	**208**	**200**	**220**	**230**	**240**
Max. Rated Output Wattage	720	720	720	720	720	720	720
Nominal Input Current (A rms)	8.46	6.97	3.80	3.87	3.74	3.5	3.29
Max. Rated Input Wattage Rating (Watts)	846.0	836.4	790.4	774.0	822.8	805.0	789.6
Max. Rated VA (Volt-Amp)	837.54	828.03	774.59	758.52	806.34	788.9	773.81
Efficiency (%) at Max. Rated Output Wattage	88.12	89.49	90.95	90.74	91.51	91.92	92.27
Power Factor	0.99	0.99	0.98	0.98	0.98	0.98	0.98
Leakage Current (mA)	0.17	0.19	0.29	0.31	0.35	0.37	0.41
Max. Inrush Current (A peak)	17.24	19.41	18.52	16.88	16.48	20.47	22.54
Max. Inrush Current Duration (mS)	4.62	4.58	4.61	4.62	4.64	4.63	4.64
Max. British Thermal Unit Rating (BTU/hr)	2456.64	2456.64	2456.64	2456.64	2456.64	2456.64	2456.64

Hardware Key Options

CPU	• AMD® Opteron™ 6000 series
HDD	• SAS 2.5": 73 GB, 146 GB, 300 GB, 450 GB, 600 GB • SAS 3.5": 300 GB, 450 GB, 600 GB • SATA 2.5": 150 GB, 300 GB, 500 GB • SATA 3.5": 250 GB, 500 GB, 1TB, 2 TB • SATA SSD 2.5": 32GB, 64GB
Memory	• DDR3 1333 MHz Unbuffered ECC 2/ 4 GB • DDR3 1333 MHz Registered ECC: 2/ 4/ 8/ 16 GB
SAS HBA	• SAS HBA, internal 2-ports/external 2-ports, PCI-E x1 interface
SAS RAID	• MegaRAID SAS 9240-4i, 4 internal ports, PCIe x8, supporting RAID 0/1/10/5 • MegaRAID SAS 9260-8i, 8 internal ports, 512 MB PCIe x8, supporting RAID 0/1/10/5/50/6/60 • MegaRAID SAS 9260-16i, 16 internal ports, 512 MB PCIe x8, supporting RAID 0/1/10/5/50/6/60 • LSI® BBU07/ Battery Backup Unit for MegaRAID SAS 9260-8i and 9260-16i
Networking	• Gigabit CT Desktop Adapter, Gigabit Adapter10/100/1000 Mbps • Gigabit ET Server Adapter, Gigabit 10/100/1000 Mbps, PCIe, dual-port • Gigabit ET2 Server Adapter, Gigabit Adapter 10/100/1000 Mbps, PCIe, quad-port • Ethernet Server Adapter X520-DA2, 10 Gb, Dual ports, direct attach • Ethernet Server Adapter X520-LR1, single port, LR • Ethernet Server Adapter X520-SR1, single port, SR • Ethernet Server Adapter X520-SR2, dual ports, SR
Fiber Channel HBA	• Qlogic SANblade® QLE2460 single port fibre channel to PCI express host bus adapter, 1 ch, 8 Gb FC HBA, PCIe x8, single LC port (std & low-profile bracket) • Qlogic SANblade® QLE2462 dual ports fibre channel to PCI express host bus adapter, 2ch, 8 Gb FC HBA, PCIe x8, dual LC port (std & low-profile bracket)

Server Additional Options/Accessories

TPM	• TPM module (TPM 1.2)
Optical Drive	• Slim-line (12.7 mm tray) DVD/RW
Flash Memory	• USB low-profile flash memory for VMware embedded
HDD cage/ backplanes	• 2.5" 8-bay HDD cage (std in some models, additional bay available to populate the system with 16 HDD's) • 3.5" 6-bay HDD cage (std in some models)
Tape & Disk based backup	• LTO-3 1U SAS Rackmount (external) Tape Drive kit • LTO-4 1U SAS Rackmount (external) Tape Drive kit • 36/72 GB, DAT72 (DDS Gen-5), 5.25", internal half height, USB interface • 80/160 GB, DAT160, 5.25", internal half height, USB interface • 160/320 GB, DAT320, 5.25", internal half height, USB interface
Rackmount kits	• Sliding rails (Cable Management Arm option available)
Riser cards	• Left-side riser for 2U server (included) • Right-side riser for 2U server (included)

Service and Support

Acer Servers offer a comprehensive service suite to take care of daily IT needs. Users can select the 3-year standard warranty or choose extended warranties and services[5].

The standard warranty for the AR385 F1 includes three years Parts coverage with the first year including Labor and On-Site coverage.

Warranty repairs may be accomplished through the use of Customer Replacement Unit (CRU) parts. CRU parts include: Hot Plug Hard Drives and Hot Plug Power Supplies. These parts are designed for easy replacement without tools. Travel and labor charges may apply if customers decline to replace a CRU part.

In a continuing effort to improve the quality of our products, information in this document is subject to change without notice. Images shown are only representations of some of the configurations available for this model. Availability may vary depending on region.

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[5] Extension warranty services may vary by country. Please contact Acer authorized resellers for more information.

Acer Standard Server Models	Part Number
Acer AR385 SFF Models	
Acer AR385F1 Opteron 6128 (2GHz, 8Cores), 2x4GB DDR3 Reg, no HDD, 8x2.5"HDD bay, 4 Port SAS RAID controller, DVD-RW, 1x720W 80+ Gold PSU (second optional), 4x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, UPS Power Cable, no Mouse, no KB, Rail kit (2U) Included	TK.R6V00.002
Acer AR385F1 Opteron 6128HE , 2x4GB DDR3 Reg, no HDD, 8x2.5"HDD bay, Onboard SATA, DVD-RW, 1x720W 80+ Gold PSU (second optional), 4x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, UPS Power Cable, no Mouse, no KB, Rail kit (2U) Included	TK.R6V00.005
Acer AR385F1 Opteron 6136 , 2x4GB DDR3 Reg, no HDD, 8x2.5"HDD bay, 8 Port SAS RAID controller with 512MB Cache, DVD-RW, 1x720W 80+ Gold PSU (second optional), 4x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, UPS Power Cable, no Mouse, no KB, Rail kit (2U) Included	TK.R6V00.004
Acer AR385F1 Opteron 6172 , 2x4GB DDR3 Reg, no HDD, 8x2.5"HDD bay, 8 Port SAS RAID controller with 512MB Cache, DVD-RW, 1x720W 80+ Gold PSU (second optional), 4x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, UPS Power Cable, no Mouse, no KB, Rail kit (2U) Included	TK.R6V00.003
Acer AR385F1 Opteron 6174 , 2x4GB DDR3 Reg, no HDD, 8x2.5"HDD bay, 8 Port SAS RAID controller with 512MB Cache , DVD-RW, 1x720W 80+ Gold PSU (second optional), 4x GBit LAN onboard, Acer Smart Setup, Acer Smart Manager, UPS Power Cable, no Mouse, no KB, Rail kit (2U) Included	TK.R6V00.006
Acer Key Options	**Part Number**
Acer CPU Heatsink	
Note: one heatsink required for each processor option kit	
Acer AMD G34 2U Passive Heat-sink Kit	TC.34900.012
Acer Processor upgrade kits	
Note: one heatsink required for each processor option kit	
Note: all processors in a system must match	
Acer AMD Opteron™6128(D1)Kit	TC.32500.028
Acer AMD Opteron™6136(D1)Kit	TC.32500.043
Acer AMD Opteron™6174(D1)Kit	TC.32500.032
Acer Memory	
Note: cannot mix Unbuffered memory with Registered memory	
Note: please refer to "Memory Support" Section for details on configuring memory	
Acer Unbuffered Memory	
Acer 2GB DDR3-1333 Unbuffered Memory Kit (1 pc.)	TC.33100.035
Acer 4GB DDR3-1333Unbuffered Memory Kit (1 pc.)	TC.33100.037
Acer Registered Memory	
Acer 2GB DDR3-1333Registered Memory Kit (1 pc.)	TC.33100.029
Acer 4GB DDR3-1333Registered Memory Kit (1 pc.)	TC.33100.031
Acer 8GB DDR3-1333Registered Memory Kit (1 pc.)	TC.33100.042
Acer Storage	
Acer SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
Acer 150GB 3Gb/s 10K 2.5-inch Enterprise SATA HDD Kit	TC.32700.090
Acer 300GB 3Gb/s 10K 2.5-inch Enterprise SATA HDD Kit	TC.32700.088
Acer 500GB 3Gb/s 7.2K 2.5-inch Enterprise SATA HDD Kit	TC.32700.046
Acer SAS Hot Plug SFF (2.5-inch) 10K Enterprise Drives	
Acer 146GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.083
Acer 300GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.081
Acer 450GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.072
Acer 600GB 6Gb/s 10K 2.5-inch Enterprise SAS HDD Kit	TC.32700.070

Acer SAS Hot Plug SFF (2.5-inch) 15K Enterprise Drives	
Acer 73GB 6Gb/s 15K 2.5-inch Enterprise SAS HDD Kit	TC.32700.087
Acer 146GB 6Gb/s 15K 2.5-inch Enterprise SAS HDD Kit	TC.32700.085
Acer SATA Hot Plug SFF (2.5-inch) Enterprise SSD Drives	
Acer 32GB SLC SATA 2.5-inch Enterprise SSD Kit	TC.33900.003
Acer 64GB SLC SATA 2.5-inch Enterprise SSD Kit	TC.33900.004
Acer SAS Storage Controllers	
Acer 4-port (2 int., 2 ext.) 3Gb/s SAS HBA	TC.32300.008
Acer 4-port 6Gb/s SAS RAID Adapter (w/ mSAS-mSAS cable) Kit	TC.32300.028
Acer 8-port 6Gb/s SAS RAID Adapter (w/ mSAS-mSAS cable) Kit	TC.32300.034
Acer 16-port 6Gb/s SAS RAID Adapter (w/ mSAS-mSAS cable) Kit	TC.32300.042
Acer Battery Backup Kit for Cache module in 8port/16port SAS RAID Card	TC.34800.006
Acer Redundant Power Supply	
Acer 720 W Power Supply Module (GOLD level)	TC.33600.005
Acer Fibre Channel Storage Controllers	
Acer 8Gb/s Single Port Fibre Channel HBA Kit	TC.32300.024
Acer 8Gb/s Dual Port Fibre Channel HBA Kit	TC.32300.026
Acer Tape Drives	
Acer LTO-3 1U Rackmount (ext.) Tape Drive Kit	TC.34000.008
Acer LTO-4 1U Rackmount (ext.) Tape Drive Kit	TC.34000.009
Acer Additional Upgrades	
Acer 8-bay 2.5-inch Hot-plug HDD Cage Kit	TC.32800.006
Acer Cable Management Arm (2U/4U) Kit (1000mm Rack required)	TC.33700.021
Acer Gigabit Single Port LAN Adapter Kit	TC.32200.011
Acer Gigabit Dual Port Server LAN Adapter Kit	TC.32200.009
Acer Gigabit Quad Port Server LAN Adapter Kit	TC.32200.010
Acer 10 Gigabit Dual Port (DA) Server LAN Adapter Kit	TC.32200.012
Acer 10 Gigabit Single Port (SR) Server LAN Adapter Kit	TC.32200.014
Acer 10 Gigabit Single Port (LR) Server LAN Adapter Kit	TC.32200.013
Acer 10 Gigabit Dual Port (SR) Server LAN Adapter Kit	TC.32200.015
Acer Operating Systems	
Windows Server Enterprise 2008	
Acer ROK Windows SVR 2008 R2 Enterprise (64bit,25Clt,EN)	TC.34400.035
Acer ROK MICROSOFT Win SVR 2008 64bit Ent R2 10 Clt EN W/COA W/CD/DVD ACER 1-8CPU	TC.34400.034
Windows Server Standard 2008	
Acer ROK MICROSOFT Win SVR 2008 64bit Std R2 5 Clt EN W/COA W/CD/DVD ACER 1-4CPU	TC.34400.033
Windows Server Web Edition	
Acer ROK MICROSOFT Windows Server 2008 R2 Web(64bit,EN) Kit	TC.34400.075
Microsoft CAL's	
Acer Windows Server 2008 CAL EN (5 Device)	TC.34400.061
Acer Windows Server 2008 CAL EN (5 User)	TC.34400.063
Acer Services	
Acer Upgrade from 3 year Parts/1 year Labor/1 year On-Site to 3 years Parts/Labor/On-site service	146.AD314.003
Acer Upgrade from 3 year Parts/1 year Labor/1 year On-Site to 3 years Parts/Labor/On-site service w/4hr response	146.AD316.006
Acer Upgrade from 3 year Parts/1 year Labor/1 year On-Site to 5 years Parts/Labor/On-site service w/4hr response	146.AD317.006